



# SUBNERO WNC SERIES

## MULTI-RECEIVER MODEM

Acoustic smart modems with multiple receiving hydrophones for enhanced performance



### ENHANCED COMMUNICATION PERFORMANCE

Uses spatial diversity combining to maintain strong and reliable links in challenging acoustic environments.

### RESEARCH-READY SIGNAL ACCESS

Provides access to raw acoustic data from all receivers, offering an ideal platform for researchers developing custom communication, navigation, tracking, and signal-processing algorithms for AUVs.

### FLEXIBLE DEVICE ROLES

Supports use as a high-performance communication modem, a positioning aid, or a versatile acoustic recorder.

### 3D POSITIONING AND TRACKING

Enables three-dimensional localization and tracking using multi-hydrophone signal processing.

## APPLICATIONS

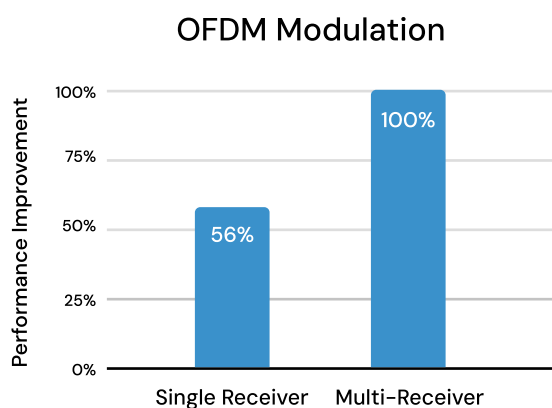
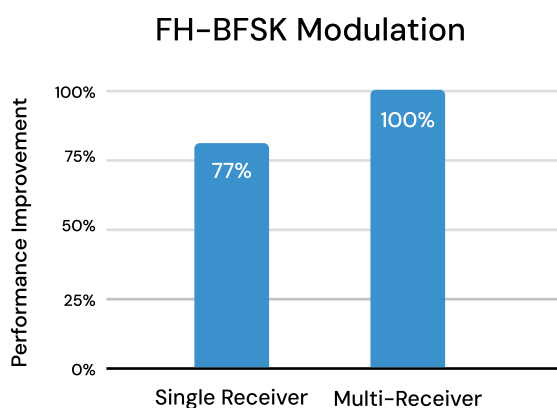
- ✓ Underwater positioning and tracking research
- ✓ High-performance subsea communications
- ✓ Rapid environmental assessment
- ✓ Underwater IoT networks



## SUBNERO MULTI-RECEIVER MODEM

Upgrade the modem by adding additional receiving hydrophones to enhance performance through spatial diversity, improving reliability, extending range, and enabling advanced sensing capabilities. This configuration provides a stronger platform for demanding communication, localization, and research applications.

### ENHANCED COMMUNICATION PERFORMANCE



Example performance improvement for incoherent (FH-BFSK) and coherent (OFDM) modulation schemes.

### TECHNICAL SPECIFICATION

Modem	Subnero WNC Series Smart Modems
Receive channels	Up to 4
Waveform streaming	Supported (all receivers)
Programmable gain	36 dB
Dimensions (M25M series)	$\varnothing 100 \times 303$ mm (excluding hydrophone) $\varnothing 100 \times 462$ mm (including hydrophone)
Dimensions (L12L series)	$\varnothing 100 \times 313$ mm (excluding hydrophone) $\varnothing 100 \times 472$ mm (including hydrophone)
Weight (in air / water)	2.2 / 0.9 kg
Power consumption	< 4 W (receive mode, nominal) < 45 W (transmit mode, average)

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